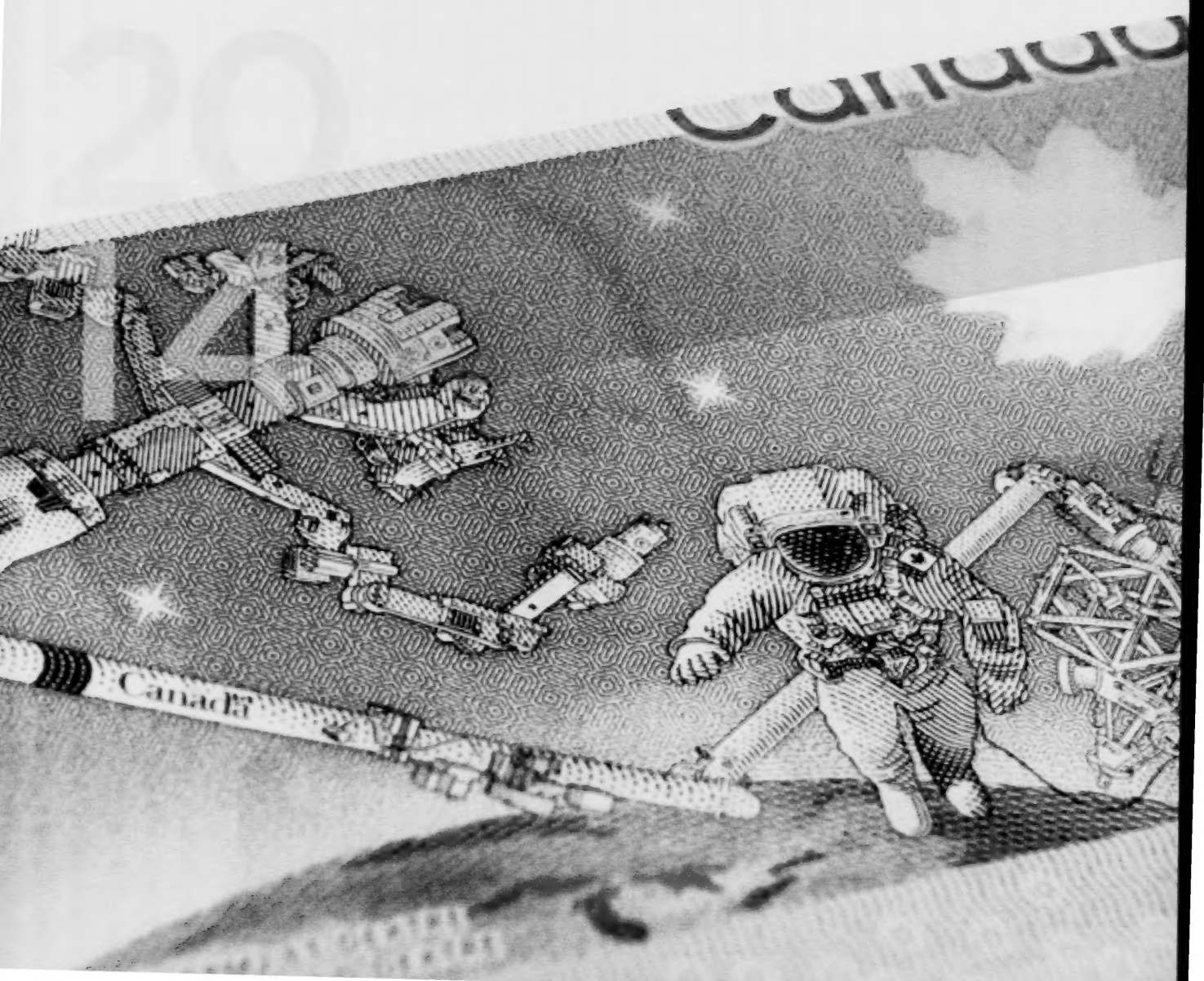
BANK OF CANADA
BANQUE DU CANADA

MONETARY POLICY REPORT

January 2014



Canada's Inflation-Control Strategy[1]

Inflation targeting and the economy

- The Bank's mandate is to conduct monetary policy to promote the economic and financial well-being of Canadians.
- Canada's experience with inflation targeting since 1991 has shown that the best way to foster confidence in the value of money and to contribute to sustained economic growth, employment gains and improved living standards is by keeping inflation low, stable and predictable.
- In 2011, the Government and the Bank of Canada renewed Canada's inflation-control target for a further five-year period, ending 31 December 2016. The target, as measured by the total consumer price index (CPI), remains at the 2 per cent midpoint of the control range of 1 to 3 per cent.

The monetary policy instrument

- The Bank carries out monetary policy through changes in the target overnight rate of interest.[2] These changes are transmitted to the economy through their influence on market interest rates, domestic asset prices and the exchange rate, which affect total demand for Canadian goods and services. The balance between this demand and the economy's production capacity is, over time, the primary determinant of inflation pressures in the economy.
- Monetary policy actions take time—usually from six to eight quarters—to work their way through the economy and have their full effect on inflation. For this reason, monetary policy must be forward looking.
- Consistent with its commitment to clear, transparent communications, the Bank regularly reports its perspective on the forces at work on the economy and their implications for inflation. The *Monetary Policy Report* is a key element of this approach. Policy decisions are typically announced on eight pre-set days during the year, and full updates of the Bank's outlook, including risks to the projection, are published four times per year in the *Monetary Policy Report*.

Inflation targeting is *symmetric* and *flexible*

- Canada's inflation-targeting approach is *symmetric*, which means that the Bank is equally concerned about inflation rising above or falling below the 2 per cent target.
- Canada's inflation-targeting framework is *flexible*. Typically, the Bank seeks to return inflation to target over a horizon of six to eight quarters. However, the most appropriate horizon for returning inflation to target will vary depending on the nature and persistence of the shocks buffeting the economy.

Monitoring inflation

- In the short run, a good deal of movement in the CPI is caused by fluctuations in the prices of certain volatile components (e.g., fruit and gasoline) and by changes in indirect taxes. For this reason, the Bank also monitors a set of "core" inflation measures, most importantly the CPIX, which strips out eight of the most volatile CPI components and the effect of indirect taxes on the remaining components. These "core" measures allow the Bank to "look through" temporary price movements and focus on the underlying trend of inflation. In this sense, core inflation is monitored as an *operational guide* to help the Bank achieve the total CPI inflation target. It is not a replacement for it.

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1 See *Joint Statement of the Government of Canada and the Bank of Canada on the Renewal of the Inflation-Control Target* (8 November 2011) and *Renewal of the Inflation-Control Target: Background Information—November 2011*, which are both available on the Bank's website.

2 When interest rates are at the zero lower bound, additional monetary easing to achieve the inflation target can be provided through three unconventional instruments: (i) a *conditional* statement on the future path of the policy rate; (ii) quantitative easing; and (iii) credit easing. These instruments and the principles guiding their use are described in the Annex to the April 2009 *Monetary Policy Report*.

The *Monetary Policy Report* is available on the Bank of Canada's website at **bankofcanada.ca**.

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Monetary Policy Report

January 2014

This is a report of the Governing Council of the Bank of Canada:
Stephen S. Poloz, Tiff Macklem, John Murray, Timothy Lane, Agathe Côté and Lawrence Schembri.

"As our inflation target is symmetric, we care about both the upside and downside risks to inflation. Of course, when we are already below target, as we are today, we care more about downside risks than upside ones."

—Stephen S. Poloz

Governor, Bank of Canada
Montréal, Quebec
12 December 2013

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Global Economy

Global economic growth is expected to strengthen over the next two years, led by stronger momentum in the United States (**Table 1** and **Chart 1**). In contrast, in the euro area, GDP growth will be modest as further private deleveraging and high unemployment continue to weigh on domestic demand. In Japan, exceptional monetary policy stimulus is projected to sustain the ongoing recovery, despite scheduled increases in the value-added tax.

Table 1: Projection for global economic growth

	Share of real global GDP[a] (per cent)	Projected growth[b] (per cent)			
		2012	2013	2014	2015
United States	20	2.8 (2.8)	1.9 (1.5)	3.0 (2.5)	3.2 (3.3)
Euro area	14	-0.6 (-0.6)	-0.4 (-0.4)	0.9 (1.0)	1.4 (1.3)
Japan	5	1.4 (2.0)	1.7 (1.8)	1.8 (1.5)	1.1 (1.0)
China	15	7.7 (7.7)	7.7 (7.7)	7.2 (7.4)	7.1 (7.2)
Rest of the world	47	3.2 (3.2)	2.9 (2.8)	3.2 (3.4)	3.8 (3.7)
World	100	3.1 (3.1)	2.9 (2.8)	3.4 (3.4)	3.7 (3.6)

a. GDP shares are based on International Monetary Fund (IMF) estimates of the purchasing-power-parity (PPP) valuation of country GDPs for 2012. The individual shares may not add up to 100 owing to rounding.

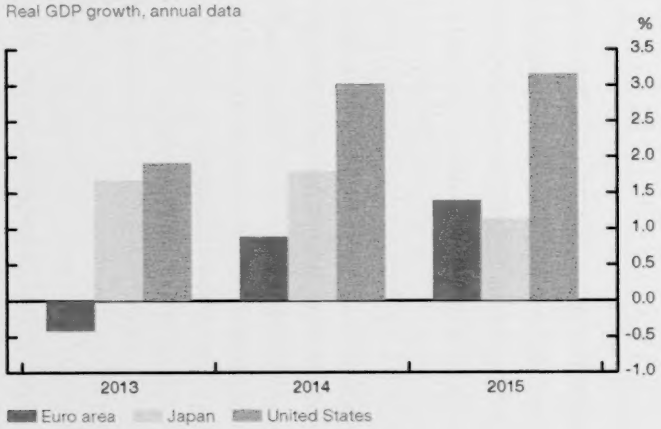
Source: IMF, *World Economic Outlook*, October 2013

b. Numbers in parentheses are projections used for the October 2013 *Monetary Policy Report*.

Source: Bank of Canada

Chart 1: The United States is expected to lead the strengthening in global economic growth

Real GDP growth, annual data



Source: Bank of Canada projections

China's real GDP is anticipated to grow at a more moderate, though still solid, pace over the projection horizon, with a gradual rebalancing toward consumption and away from investment and exports. Economic activity in other emerging-market economies (EMEs) is projected to pick up, owing to a normalization of financial conditions, more robust growth in foreign demand and further progress on economic reforms.

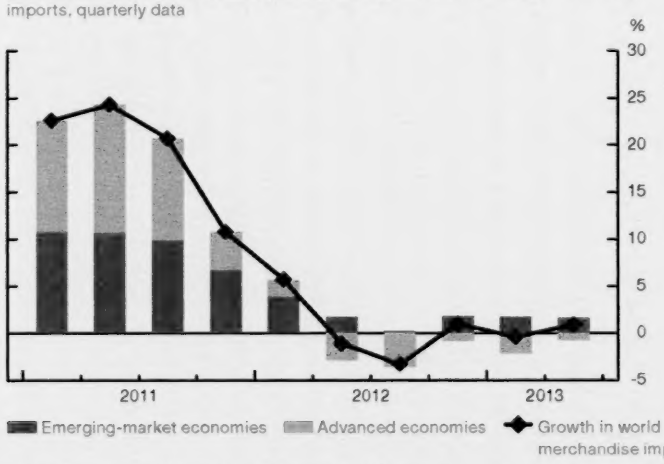
While global trade growth has plunged since 2011 (**Chart 2**), a recovery is expected over the projection horizon, supported by growing international demand. At the same time, the improvement in world economic activity should help to sustain the elevated level of commodity prices. Overall, global economic growth is expected to rise from 2.9 per cent in 2013 to 3.4 per cent in 2014 and 3.7 per cent in 2015.

Financial conditions in the advanced economies remain highly supportive of economic growth. The decision by the U.S. Federal Open Market Committee (FOMC) to taper its asset purchases was well received in financial markets, compared with the outsized response in May 2013 to the initial indication that asset purchases might be reduced (**Chart 3**). Reflecting expectations of stronger growth, especially in the United States, yields on long-term government bonds in many advanced economies have increased (**Chart 4**), and risky assets have performed well. Financial conditions in some EMEs remain challenging, however, particularly in those economies with weak fundamentals. As U.S. monetary policy is normalized, there may be some overshooting in global bond yields, which would lead to tighter global financial conditions and slower global growth.

Inflation remains below target in most advanced economies, dampened by significant excess capacity. As economic slack is reduced and labour markets firm, inflation rates in these economies are projected to move up gradually.

Chart 2: Global trade growth plunged after 2011

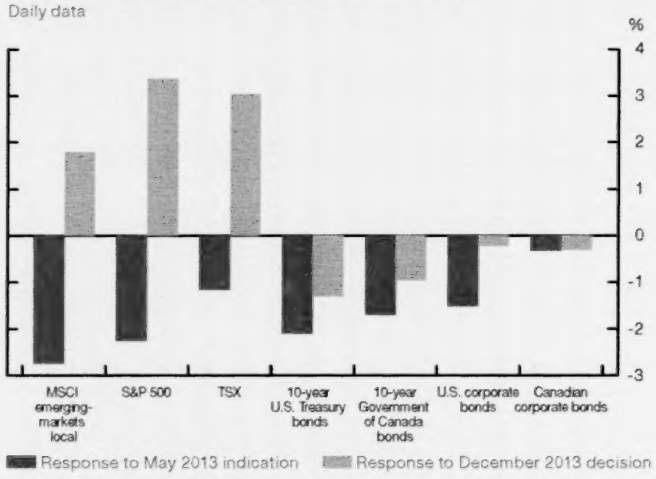
Contribution to year-over-year percentage change in nominal world merchandise imports, quarterly data



Note: Nominal world merchandise imports are measured in U.S. dollars.
Source: World Trade Organization
Last observation: 2013Q2

Chart 3: The FOMC's decision to taper was well received in financial markets compared with the initial reaction in May 2013

Daily data



Notes: The MSCI emerging-markets local is an equity index in local currency. For government bonds, prices are derived from 10-year generic bond yields. For corporate bonds, the Bank of America Merrill Lynch total return indexes in local currency are used.
Time period shown for the May 2013 indication: 21 May to 4 June
Time period shown for the December 2013 decision: 17 December to 30 December

Source: Bloomberg Last observation: 30 December 2013

Chart 4: Yields on long-term government bonds have increased in advanced economies, but remain low by historical standards

Yields to maturity on 10-year sovereign bonds, daily data

Source: Reuters Last observation: 17 January 2014

The United States is expected to lead faster global growth

U.S. economic growth in the second half of 2013 is estimated to have rebounded to more than 3.5 per cent, on average, notwithstanding the adverse effects of fiscal consolidation, higher long-term interest rates, and the added uncertainty caused by a temporary government shutdown and the debt-ceiling standoff. There has since been an improvement in both household and business confidence, owing to the resolution of these fiscal issues and the stronger economic outlook. While the anticipated cumulative drag on growth from fiscal policy over the next two years is largely unchanged relative to previous expectations, under the new agreement, it will be spread more evenly. Fiscal drag is now projected to decline from 1.7 percentage points in 2013 to 0.5 percentage points in 2014 and 0.3 percentage points in 2015.[1]

Given the improvement in economic conditions, the U.S. FOMC has begun to reduce the pace of its monthly asset purchases, with further reductions conditional on the outlook for labour market conditions and inflation. Monetary policy is expected to remain highly accommodative, however, and U.S. financial conditions are very stimulative. Based on the FOMC's recently revised forward guidance, policy interest rates are likely to remain at the current low levels well after the unemployment rate has declined below 6 1/2 per cent—especially if projected inflation remains under the 2 per cent target. Equity prices have reached record levels, and yields on corporate bonds are low, leading to robust issuance.

A projected broad-based acceleration in U.S. private demand over 2014–15 is expected to create a virtuous circle of self-sustaining growth. Growth in consumption is expected to pick up, supported by strengthening labour market conditions, continued increases in household wealth and improved access to credit. Even with higher mortgage interest rates, the recovery in the housing sector is projected to continue at a solid pace as bank lending conditions are eased, household formation rebounds and the stock of homes in foreclosure declines. In addition, the growth of business investment is anticipated to increase, given improving economic conditions and less uncertainty about fiscal policy. A robust rise in exports will likely be more than offset by an increase in non-oil imports, with net exports making a slightly negative contribution to real GDP growth over the projection horizon.

Overall, U.S. real GDP growth is expected to rise from 1.9 per cent in 2013 to 3.0 per cent in 2014 and 3.2 per cent in 2015. This growth profile is stronger than anticipated in the October *Report*, reflecting broad-based strength in U.S. private demand. Based on the past dispersion of private sector forecasts, U.S. economic growth in 2014 would be expected to fall within ± 0.5 percentage points of the Bank's projection, with a somewhat wider range in 2015. There is a risk, however, that U.S. economic growth could surprise further on the upside if businesses increased investment spending more rapidly than projected in response to reduced policy uncertainty and a rekindling of "animal spirits." Such a scenario would have broad positive spillover effects on the global economy.

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1 In the October *Monetary Policy Report*, the fiscal drag was expected to amount to 1.8 percentage points in 2013, and then to decline to 0.8 percentage points in 2014 and zero in 2015.

Inflation in the advanced economies has been declining

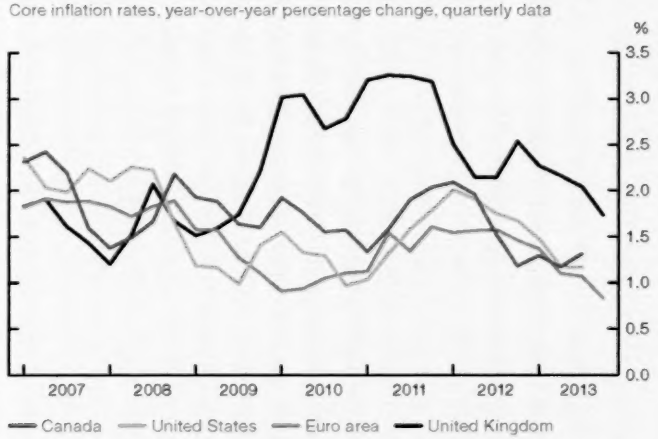
Inflation has been trending lower over the past two years in many advanced economies, in some cases falling well below target levels (**Chart 5**). This generalized weakness likely reflects common international factors, such as reductions in global food and energy prices, as well as the impact from still-sizable negative output gaps and high unemployment (**Box 1**).

The downward trend of inflation in the advanced economies is expected to reverse over the projection horizon. In the United States, strengthening growth is expected to reduce economic slack and move inflation closer to the 2 per cent target toward the end of 2015. In Japan, core inflation has become positive for the first time in five years in response to aggressive monetary policy stimulus. It is expected to rise further over the projection horizon, with an anticipated increase in wages contributing importantly to this movement. Given the muted recovery in the euro area, the output gap will remain sizable, and the rise in inflation is expected to be limited.

Compared with the advanced economies, inflation remains relatively high in many EMEs, driven in part by exchange rate depreciations that have pushed up import prices. The recent tightening in monetary policy in some EMEs, combined with structural reforms that will help to relieve supply constraints, is projected to lead to a reduction in inflation in these economies.

Chart 5: Inflation has been declining in many advanced economies

Core inflation rates, year-over-year percentage change, quarterly data



Note: For the United States, the price index for core personal consumption expenditures is shown, while for other countries, it is the core consumer price index.

Sources: Statistics Canada, U.S. Bureau of Economic Analysis, Eurostat and U.K. Office for National Statistics

Last observations: 2013Q3 for Canada and United States; 2013Q4 for others

Box 1

Weak Inflation in Advanced Economies Remains a Concern

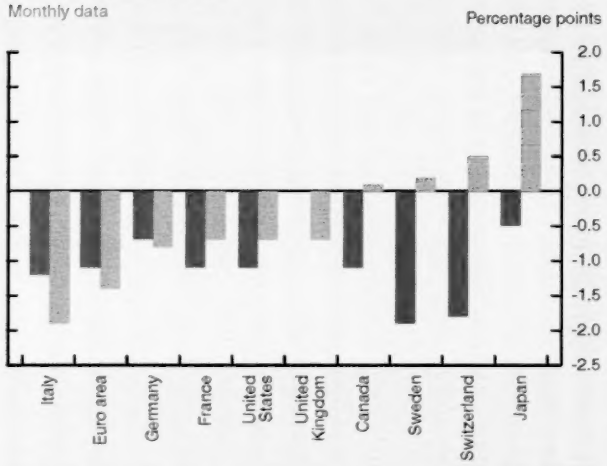
Over the past two years, total CPI inflation in advanced economies has slowed considerably, dropping by 1.6 percentage points to reach 1.5 per cent on average (on a year-over-year basis) in November 2013 (**Chart 1-A**). It is now below the targets of central banks in most advanced economies. Core inflation has also fallen, but by a slightly smaller amount, and averages 1.6 per cent on a year-over-year basis.

Our analysis suggests that the weakness in total CPI inflation in advanced economies has a large, common international component that is likely associated with declines in global prices for food and energy. The weakness in core inflation, on the other hand, is only partly explained by a common global factor, despite widespread excess capacity in the global economy since 2009 (**Chart 1-B**). In this regard, it is somewhat puzzling that the rate of inflation has been declining only recently.[1]

It may be that inflation responds more to persistent output gaps, and with a considerable lag. Country-specific factors may also be important in explaining the recent movements in core inflation. These factors vary across countries and include greater retail competition, the waning impact of previous increases in taxes or regulated prices, and low wage pressures.

Chart 1-A: Inflation has slowed considerably in most advanced economies

Monthly data

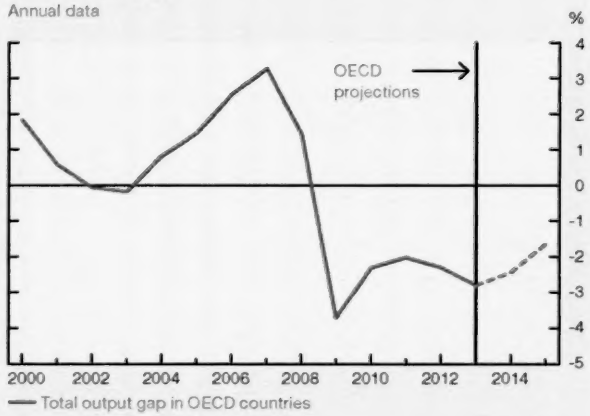


Note: The series shown are the inflation indexes targeted by central banks.
Source: Haver Analytics

Last observations: November 2013 for Canada, United States and Japan; December 2013 for all others

Chart 1-B: There is widespread excess capacity in the global economy

Annual data



Note: The 2013–15 values are projections.
Source: Organisation for Economic Co-operation and Development, Economic Outlook, November 2013

1 Well-anchored inflation expectations and the high credibility of central banks contributed to the relative stability of inflation throughout the crisis.

The Bank of Canada's commodity price index is expected to remain elevated

Commodity prices, as measured by the Bank of Canada's commodity price index (BCPI), are elevated (**Chart 6**). High commodity prices continue to reflect the growing importance of China and other EMEs. In particular, China's solid growth outlook and the size of its economy mean that the demand for commodities should continue to be robust.[2] Moreover, ongoing urbanization and an expanding middle class in China and other EMEs are expected to support commodity prices over the medium term.

2 In U.S.-dollar terms, China's economy has doubled to roughly US$9 trillion in the past five years.

Chart 6: The Bank of Canada's commodity price index remains elevated

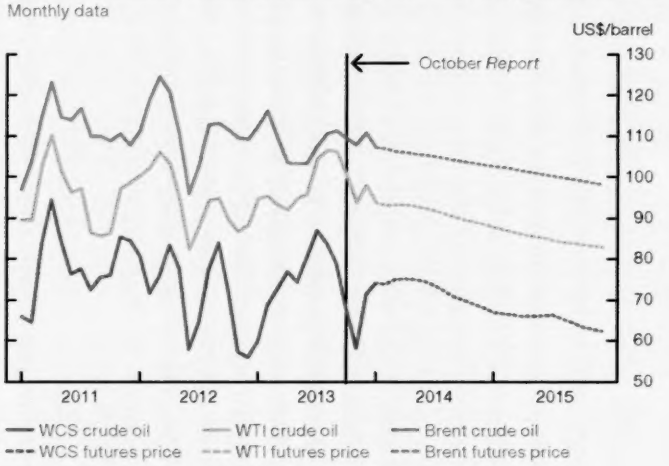
Bank of Canada commodity price index (BCPI) in real terms, 1972Q1 = 100, quarterly data

Source: Bank of Canada

Last observation: 2013Q4

Chart 7: Crude oil futures prices are declining over the projection horizon

Monthly data



Notes: WCS refers to Western Canada Select and WTI to West Texas Intermediate.
Values for January 2014 are estimates based on the average daily spot prices up to 17 January 2014.
Futures prices are estimates based on an average of futures contracts over the two weeks ending 17 January 2014.

Source: Bank of Canada

The BCPI is projected to stay relatively flat through 2014–15, in light of roughly offsetting movements in the prices of energy and non-energy commodities. Based on the latest futures curves, crude oil prices will decline over the projection horizon, reflecting higher production, especially in North America, and a gradual easing of geopolitical concerns (**Chart 7**). In contrast, non-energy commodity prices are expected to grow solidly over the next two years. Lumber prices are anticipated to increase, supported by the ongoing recovery in the U.S. housing sector, while base metals prices are projected to rise in response to stronger global demand.

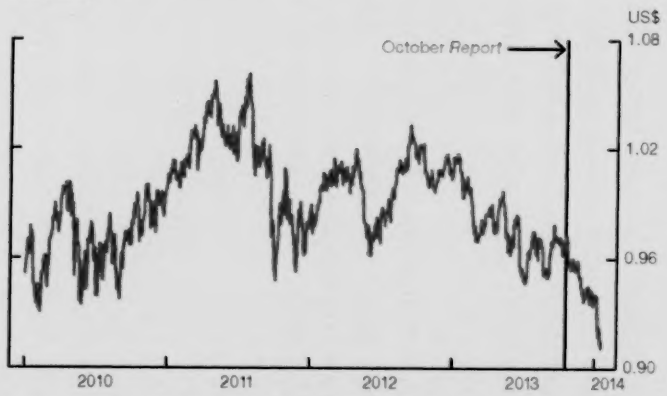
Summary

The anticipated upturn in advanced and emerging-market economies, led by the United States, is expected to result in an improved performance for Canada's exports. Robust global demand for commodities is projected to sustain the elevated level of investment in the resource sector in Canada and to support Canadian income levels.

The Canadian dollar has recently fallen to around 91 cents U.S., compared with the 97 cents U.S. assumed in the October *Report* (**Chart 8**). This depreciation likely reflects the improved growth prospects in the United States, as well as reduced safe-haven effects that had pushed the Canadian dollar higher in the aftermath of the global financial crisis. By convention, the Canadian dollar is assumed to remain at or near its current level over the projection horizon.

Chart 8: The Canadian dollar has continued to depreciate

Daily data



Note: A rise indicates an appreciation of the Canadian dollar.

Source: Bank of Canada

Last observation: 17 January 2014

Canadian Economy

Inflation has moved further below the 2 per cent target in recent months. The downward pressure on prices principally reflects a significant amount of excess supply in the economy and heightened competition in the retail sector. The effects of these factors appear to be greater than had been anticipated. At the same time, Canada's economic growth strengthened in the second half of 2013, and prospects have improved somewhat relative to the October *Report*, given expectations of firmer growth in U.S. demand.

While as yet there are no signs of a rebalancing toward exports and business investment, the strengthening of the global economy and recent depreciation of the Canadian dollar should foster a broadening of the composition of growth in Canada. As excess capacity is gradually absorbed and the effects of competition wane, the Bank expects that inflation will return to 2 per cent in about two years, although the profile of inflation is now lower than projected in October.

The Canadian economy is continuing to adjust to the aftermath of the global financial crisis and the ensuing recession, as well as to significantly higher global prices for Canada's commodity exports compared with the 1990s average. These large and persistent forces have had important sectoral and regional effects, and will continue to influence the composition of exports and business investment in coming years (**Box 2**).

The composition of growth is expected to broaden

Real GDP growth is estimated to have risen somewhat above the growth rate of potential output in the second half of 2013.[3] However, the shift in the composition of aggregate demand necessary for sustainable growth has not yet occurred. The moderate growth trend in consumer spending remained supportive of overall growth, while residential investment failed to slow to the extent anticipated. At the same time, non-commodity exports continued to disappoint, and business investment recovered more slowly than expected.

Excess capacity in the economy remains significant (**Chart 9**). Taking into account the various indicators of capacity pressures and the uncertainty surrounding any point estimates, the Bank judges that the amount of excess supply in the fourth quarter of 2013 was between 3/4 per cent and 1 3/4 per cent, slightly less than estimated in the October *Report*.

Real GDP growth is projected to rise from 1.8 per cent in 2013 to 2.5 per cent on an average annual basis in both 2014 and 2015, underpinned by the ongoing firming in the U.S. economy, which will lead to more broadly based

3 Some of the increase reflects a rebound from the temporary factors that suppressed growth in the second quarter of 2013, when economic activity was depressed by the impact of flooding in southern Alberta and the construction strike in Quebec. The temporary nature of these shocks, together with the reconstruction and repair of damaged infrastructure in Alberta, has subsequently boosted real GDP growth.

Box 2

Forces Acting on the Canadian Economy

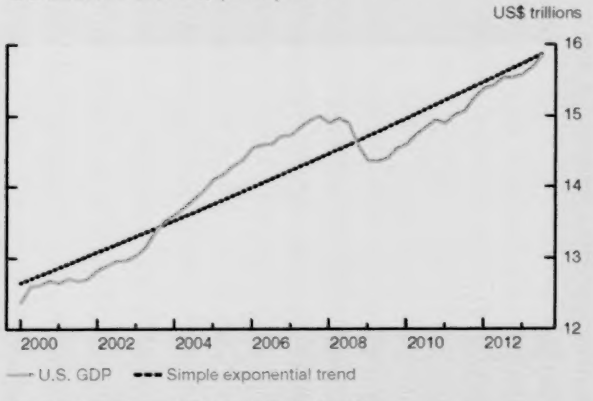
The outlook for the Canadian economy reflects its adjustment to two large and persistent shocks: (i) the global financial crisis and the ensuing Great Recession (**Chart 2-A**); and (ii) a significant improvement in Canada's terms of trade (i.e., the price of Canada's exports relative to the price of imports) due to higher global prices for many of the commodities Canada exports (**Chart 2-B**).[1]

The structural shift in the terms of trade is yielding benefits, since growth in the commodity-exporting sectors creates jobs, stimulates interprovincial trade, and raises aggregate income and wealth. In fact, gross domestic income is approximately 7 per cent higher than it would have been without the improvement in the terms of trade since 2002. As would be expected, the shift in the terms of trade is influencing the character of the recovery from the Great Recession, and will continue to do so for some time:

- **The persistent strength of the Canadian dollar.** Greater demand and higher prices for the commodities that Canada exports have supported the value of the Canadian dollar (**Chart 2-C**).[2] Despite depreciating in recent months, the Canadian dollar remains strong and will continue to pose competitiveness challenges for Canada's non-commodity exports.

Chart 2-A: Shock 1: U.S. Great Recession

Chained 2009 U.S. dollars, quarterly data



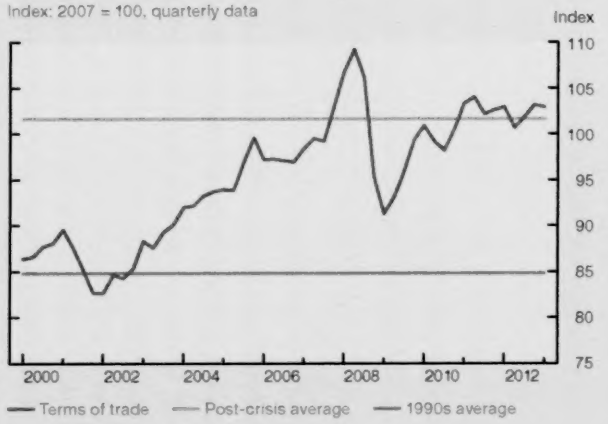
Sources: U.S. Bureau of Economic Analysis and Bank of Canada calculations

Last observation: 2013Q3

- **Sectoral realignment and two-speed recovery.** Higher commodity prices are bolstering the effects of the recovery by stimulating more activity, investment and job growth in the natural resource sector (e.g., energy and mining) than in the non-resource sector (e.g., manufacturing). This increased activity is drawing people and capital from the non-resource sector toward the resource sector; indeed, the flexibility of Canada's labour market is facilitating interprovincial migration. A side effect of this migration is more robust activity in housing markets in regions that have received inflows.

Chart 2-B: Shock 2: Canada's terms of trade are much higher than 1990s average

Index: 2007 = 100, quarterly data

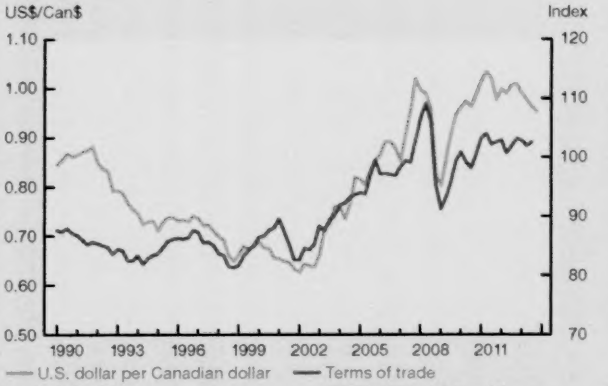


Sources: Statistics Canada and Bank of Canada calculations

Last observation: 2013Q3

Chart 2-C: Higher terms of trade have supported the Canadian dollar

Quarterly data



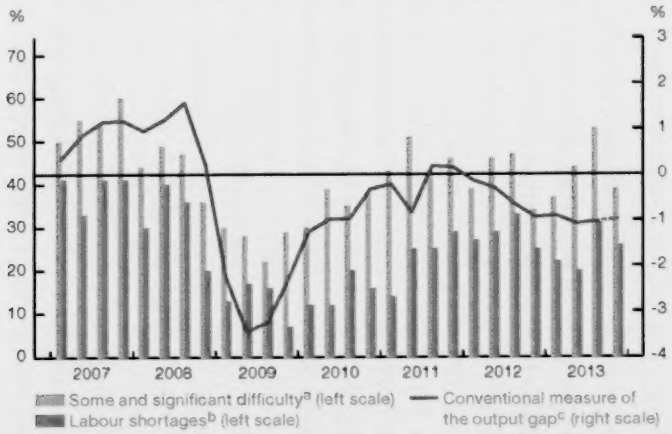
Sources: Statistics Canada and Bank of Canada

Last observations: 2013Q3 for the terms of trade and 2013Q4 for the U.S. dollar per Canadian dollar

1 Canada's terms of trade have increased by 24 per cent since early 2002. The Bank estimates that approximately half of the improvement is due to commodities. The remainder is largely attributable to a decline in the price of Canada's non-commodity imports.

2 The Bank estimates that commodity prices account for roughly half of the appreciation of the Canadian dollar since 2002. The remainder of the appreciation is in line with the broad-based depreciation of the U.S. dollar.

Chart 9: Significant excess capacity remains in the Canadian economy



a. Response to *Business Outlook Survey* question on capacity pressures. Percentage of firms indicating that they would have either some or significant difficulty meeting an unanticipated increase in demand/sales.
b. Response to *Business Outlook Survey* question on labour shortages. Percentage of firms reporting labour shortages that restrict their ability to meet demand.
c. Difference between actual output and estimated potential output from the Bank of Canada's conventional measure. The estimate for the fourth quarter of 2013 is based on an increase in output of 2.5 per cent (at annual rates) for the quarter.

Source: Bank of Canada Last observation: 2013Q4

Table 2: Contributions to average annual real GDP growth
Percentage points[a,b]

	2012	2013	2014	2015
Consumption	1.1 (1.1)	1.2 (1.3)	1.3 (1.3)	1.3 (1.4)
Housing	0.4 (0.4)	0.0 (-0.1)	0.0 (0.0)	-0.1 (0.0)
Government	0.3 (0.3)	0.2 (0.3)	0.2 (0.1)	0.1 (0.1)
Business fixed investment	0.6 (0.6)	0.1 (0.1)	0.4 (0.4)	0.9 (0.8)
Subtotal: Final domestic demand	2.3 (2.3)	1.5 (1.6)	1.9 (1.8)	2.2 (2.3)
Exports	0.4 (0.4)	0.3 (0.3)	1.2 (1.0)	1.8 (1.5)
Imports	-1.0 (-1.0)	-0.3 (-0.4)	-0.6 (-0.7)	-1.4 (-1.2)
Subtotal: Net exports	-0.6 (-0.6)	0.0 (-0.1)	0.6 (0.3)	0.4 (0.3)
Inventories	0.0 (0.0)	0.3 (0.1)	0.0 (0.2)	0.0 (0.0)
GDP	1.7 (1.7)	1.8 (1.6)	2.5 (2.3)	2.5 (2.6)
Memo items:				
Potential output	1.7 (1.7)	1.9 (1.9)	1.9 (1.9)	2.0 (2.0)
Real gross domestic income (GDI)	1.5 (1.5)	1.8 (1.6)	2.5 (2.5)	2.6 (3.0)

a. Numbers in parentheses are from the projection in the October 2013 *Monetary Policy Report*. Those for potential output are from Appendix A in the October 2013 *Monetary Policy Report*.
b. Numbers may not add to total because of rounding.

growth in global demand (**Table 2** and **Table 3**). Given the degree of uncertainty inherent in projections, the Bank judges that GDP growth will likely be within ± 0.5 percentage points of the base-case projection in 2014, with a somewhat wider range in 2015.[4]

With foreign demand expected to strengthen, the Bank's best judgment is that net exports will return to making a positive contribution to overall growth at the beginning of 2014. Total exports are projected to increase at a moderately stronger pace than expected in the October *Report*. Growth in

4 See Box 1 in the October 2013 *Monetary Policy Report*.

Table 3: Summary of the projection for Canada[a]

	2012	2013				2014				2015			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real GDP (quarter-over-quarter percentage change at annual rates)	0.9 (0.9)	2.3 (2.2)	1.6 (1.7)	2.7 (1.8)	2.5 (2.3)	2.5 (2.3)	2.5 (2.3)	2.5 (2.4)	2.6 (2.6)	2.5 (2.7)	2.5 (2.7)	2.3 (2.6)	2.2 (2.5)
Real GDP (year-over-year percentage change)	1.0 (1.0)	1.4 (1.4)	1.4 (1.4)	1.9 (1.7)	2.3 (2.0)	2.3 (2.0)	2.5 (2.2)	2.5 (2.4)	2.5 (2.4)	2.5 (2.5)	2.5 (2.6)	2.5 (2.7)	2.4 (2.7)
Core inflation (year-over-year percentage change)	1.2 (1.2)	1.3 (1.3)	1.2 (1.2)	1.3 (1.3)	1.2 (1.4)	1.0 (1.3)	1.2 (1.5)	1.3 (1.6)	1.5 (1.7)	1.6 (1.8)	1.7 (1.9)	1.8 (1.9)	1.9 (2.0)
Total CPI (year-over-year percentage change)	1.0 (1.0)	0.9 (0.9)	0.7 (0.7)	1.1 (1.1)	0.9 (1.3)	0.9 (1.2)	1.2 (1.4)	1.4 (1.6)	1.5 (1.7)	1.7 (1.8)	1.9 (1.9)	1.9 (1.9)	2.0 (2.0)
Total CPI excluding the effect of the HST and changes in other indirect taxes (year-over-year percentage change)	0.8 (0.8)	0.9 (0.9)	0.8 (0.8)	1.2 (1.2)	1.0 (1.4)	1.0 (1.3)	1.2 (1.4)	1.4 (1.6)	1.5 (1.7)	1.7 (1.8)	1.9 (1.9)	1.9 (1.9)	2.0 (2.0)
WTI[b] (level)	88 (88)	94 (94)	94 (94)	106 (106)	98 (102)	93 (101)	93 (99)	91 (97)	89 (95)	87 (93)	86 (91)	84 (90)	83 (88)
Brent[b] (level)	110 (110)	113 (113)	103 (103)	110 (110)	109 (110)	107 (108)	106 (107)	105 (105)	103 (104)	102 (102)	101 (100)	100 (99)	99 (98)

a. Numbers in parentheses are from the projection in the October 2013 *Monetary Policy Report*.

b. Assumptions for the price of West Texas Intermediate and Brent crude oil (US$ per barrel) are based on an average of futures contracts over the two weeks ending 17 January 2014.

all three major export groupings—energy-related commodities, non-energy commodities and non-commodities—is expected to pick up, although commodity exports will contribute the most to growth in GDP. The stronger performance in the trade sector should be supported by the depreciation of the Canadian dollar in recent months.[5] Sustained growth in exports should stimulate improvements in business confidence and lead to a more solid contribution from business fixed investment over time. Imports should also strengthen, given supply-chain linkages in the foreign trade sector and the high import content of business investment, particularly investment in machinery and equipment.

The economy will continue to be supported by moderate growth in consumer spending, while the level of residential investment is expected to remain relatively unchanged, commensurate with a convergence toward a more sustainable level of activity (**Chart 10**). Overall, recent developments are consistent with some degree of consumer caution and a soft landing of the housing market. Housing starts moderated in 2013 compared with 2012, particularly in regions that are not benefiting directly from the energy sector and related interprovincial migration. In the anticipation of higher mortgage rates, there was some pulling forward of house purchases over the summer. As expected, this uptick was temporary, and sales of existing homes have since slowed to a level close to their historical average. House price growth also moderated in 2013 relative to 2012 (**Chart 11**). Overall credit growth has firmed in recent months, largely reflecting the pickup in resale activity earlier in the year, but remains consistent with the Bank's view that the ratio of household debt to disposable income will stabilize over the projection horizon.

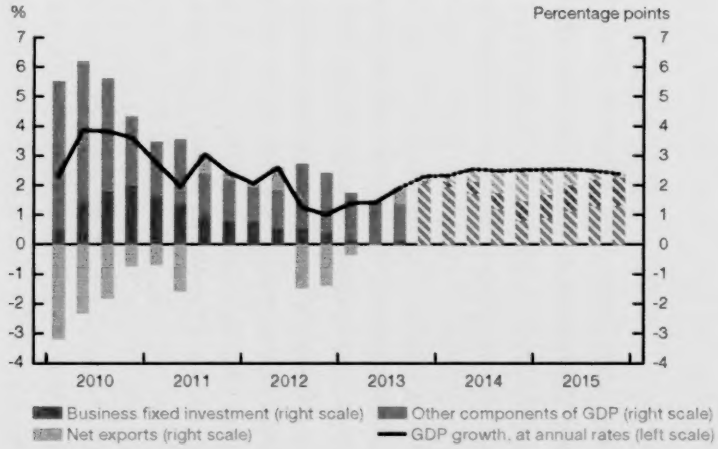
With the projected profile for the growth of real GDP exceeding the growth of potential output, the Bank expects that the economy will gradually return to its full production capacity over the next two years.[6]

5 Two recently announced federal government initiatives should also provide support to Canadian exports over coming years. The first is the Comprehensive Economic and Trade Agreement between Canada and the European Union, which has yet to be implemented, and the second is the Global Markets Action Plan.

6 The base-case economic projection is built around the midpoint of the output gap range in 2013Q4 (i.e., about 1 1/4 per cent).

Chart 10: Demand is expected to become more broadly based

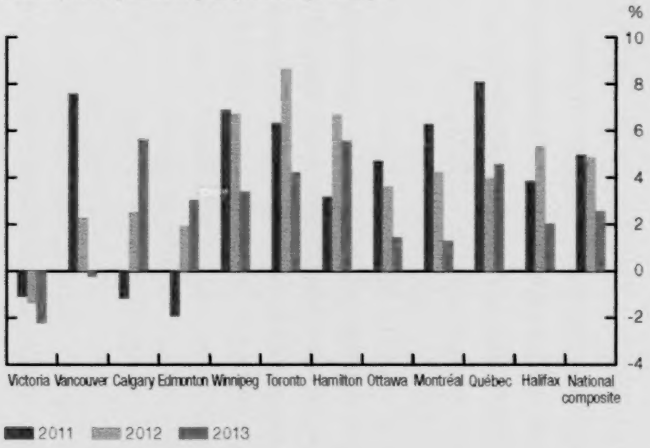
Contributions to real GDP growth; 4-quarter moving average



Sources: Statistics Canada and Bank of Canada calculations and projections

Chart 11: With the exception of Alberta, house price growth generally moderated in 2013 compared with the past two years

House prices; year-over-year percentage change



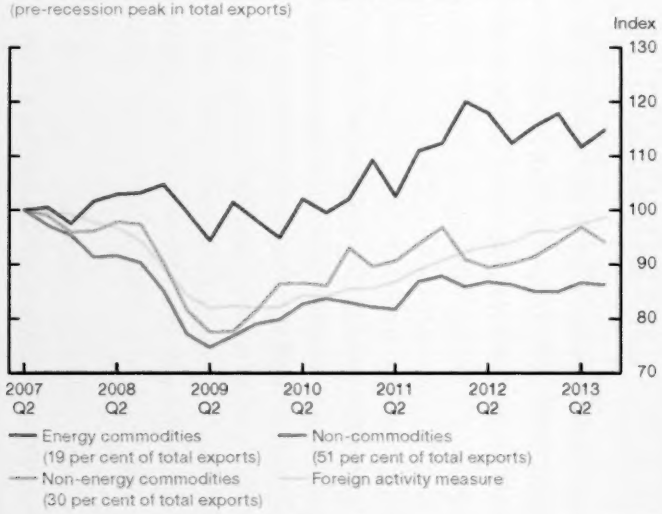
Sources: Teranet-National Bank and Bank of Canada calculations Last observation: 2013

Export and business investment growth is expected to strengthen

Non-commodity exports have remained disappointingly weak in recent quarters, despite the strengthening U.S. economy over this period (**Chart 12**). Ongoing competitiveness challenges, including competition in the U.S. market from emerging-market economies such as China and Mexico, may have played a greater role than previously estimated. Restructuring in global supply chains is affecting global trade patterns and may also have contributed to the weakness in exports. Ongoing adjustments to the terms of trade mean that commodity and non-commodity exports will continue to grow at different rates over the projection horizon (**Box 2**).

Chart 12: Excluding energy, exports have been weak

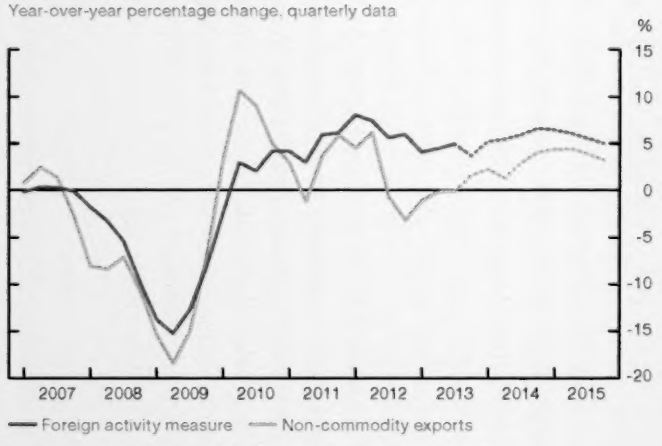
Real exports and the foreign activity measure; index: 2007Q2 = 100
(pre-recession peak in total exports)



Sources: Statistics Canada and Bank of Canada calculations — Last observation: 2013Q3

Chart 13: Growth in non-commodity exports is expected to increase along with that of foreign activity

Year-over-year percentage change, quarterly data



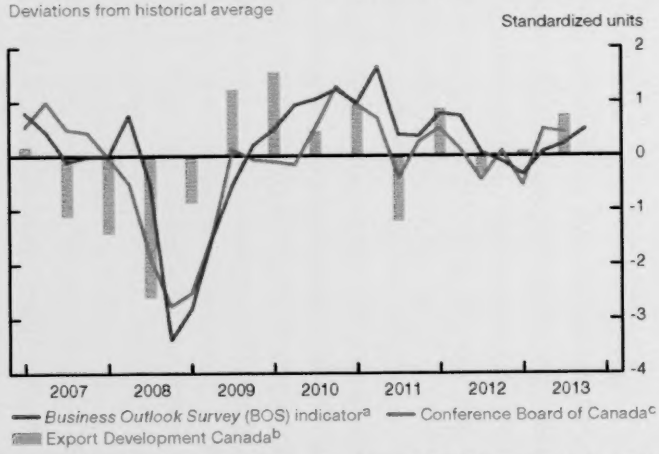
Sources: Statistics Canada and Bank of Canada calculations and projections

The non-commodity sector is expected to benefit from a U.S.-led strengthening in foreign demand, which appears more firmly entrenched than in October. A key assumption underlying the base-case projection is that growth in the non-commodity sector will pick up gradually over the next two years, but will remain slower than the pace of growth of foreign demand (**Chart 13**). While this assumption is prudent, there is a risk that the recovery in non-commodity exports may take even longer than anticipated, given ongoing competitiveness challenges and potential supply constraints.

Energy exports have been hampered during the past year by temporary production shutdowns and transportation bottlenecks (**Chart 12**). Growth in energy exports is expected to strengthen in 2014, reflecting announced plans

Chart 14: Indicators of business sentiment have shown some improvement lately

Deviations from historical average



a. This underlying measure is a summary of the responses to nine BOS questions. See L. Pichette and L. Rennison, "Extracting Information from the *Business Outlook Survey*: A Principal-Component Approach," *Bank of Canada Review* (Autumn 2011): 21–28.
b. *Trade Confidence Index* survey
c. Index of Business Confidence, Conference Board of Canada

Sources: Conference Board of Canada, Export Development Canada and Bank of Canada (including calculations)

Last observations: Autumn 2013 for Export Development Canada; 2013Q3 for Conference Board of Canada; and 2013Q4 for *Business Outlook Survey*

by major producers to increase output, the growing use of Canadian heavy oil in U.S. refineries and further growth in rail capacity. Exports of non-energy commodities, such as lumber products, are also expected to strengthen.

As uncertainty about the outlook dissipates, competitiveness pressures to improve productivity and the need to expand capacity to meet sustained increases in foreign demand are expected to lead to stronger business investment. This should be the case particularly for investment in machinery and equipment, which has been held back by cyclical factors as well as adjustments of the manufacturing sector to the effects of the relatively high terms of trade. These incentives to invest will add to those stemming from the steady growth in domestic demand.

Financial conditions in Canada remain supportive of investment, with strong investor demand reflected in relatively narrow corporate bond spreads and buoyant equity prices, suggesting confidence in the future profitability of the corporate sector. Responses to the Bank's latest *Senior Loan Officer Survey* and *Business Outlook Survey* also indicate that credit conditions remain favourable. Moreover, business credit growth remains above its historical average, although it has slowed somewhat in recent months. Canadian firms should also be more inclined to invest, since the lower value of the Canadian dollar is boosting both activity and profitability in the export sector.

There are some encouraging signs that confidence is gradually building (**Chart 14**). Firms surveyed for the Bank's latest *Business Outlook Survey* point to improvements in the U.S. economic outlook and foreign orders and to the benefits of their recent investments in bolstering their ability to export. Intentions to invest in machinery and equipment have increased for the first time since the fourth quarter of 2012, although firms also report that investments are still depressed by uncertainty, notably with respect to domestic demand. The results of the latest survey conducted by Export Development

Canada show that for the first time since the spring of 2011, the balance of opinion regarding global economic conditions is positive, and that firms are more optimistic about international business opportunities.[7]

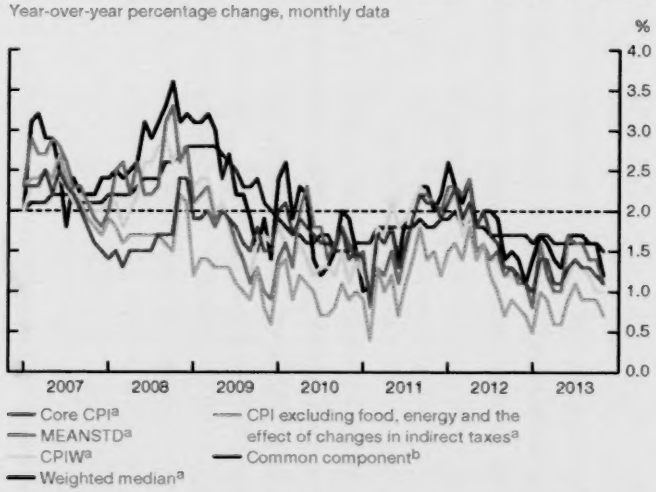
Subdued CPI inflation is expected to return slowly to target

Inflation has continued to surprise on the downside in recent months, with core inflation at 1.1 per cent in November and total CPI inflation at 0.9 per cent.[8] Alternative measures of core inflation have all fallen since the second half of 2012, with most currently at or slightly above 1 per cent (**Chart 15**). Persistently weak inflation is not unique to Canada, but is also being observed in other advanced economies (**Box 1**).

There are several factors underlying the broad-based weakness in inflation in Canada. The significant and persistent slack in the Canadian economy has contributed to a marked increase since mid-2012 in the proportion of core consumer goods and services for which prices are increasing by less than 2 per cent (**Chart 16**). Heightened competition in the retail sector is also contributing to the weakness in inflation. This has been reflected in the unusual softness in the prices for core food items and non-durable goods, two sectors where anecdotal evidence suggests that competition is most intense (**Chart 17**). Moreover, there is a possibility that a given amount of excess supply is having a larger impact on inflation than had been anticipated.[9] This could be especially the case if excess supply has persisted for a long time. Given the high degree of uncertainty around real-time estimates of the output gap, it is also possible that the level of economic slack is greater than currently estimated.

Chart 15: Alternative measures of core inflation remain well below 2 per cent

Year-over-year percentage change, monthly data



a. For definitions, see Rates & Statistics > Indicators > Indicators of Capacity and Inflation Pressures for Canada > Inflation on the Bank of Canada's website.

b. Extracts the component of inflation that is common across the individual series that make up the CPI. See M. Khan, L. Morel and P. Sabourin, "The Common Component of CPI: An Alternative Measure of Underlying Inflation for Canada," Bank of Canada Working Paper No. 2013-35.

Sources: Statistics Canada and Bank of Canada calculations Last observation: November 2013

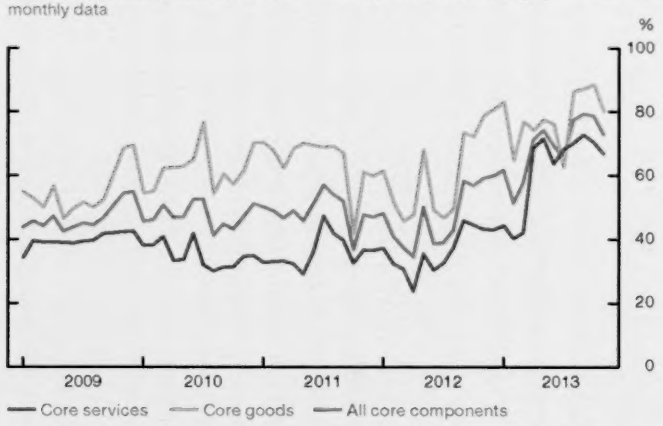
7 Export Development Canada, *Trade Confidence Index* survey, 5 December 2013

8 Mortgage interest costs are currently dampening total CPI inflation relative to core inflation, on a year-over-year basis, since some homeowners have been able to renew their mortgages at lower rates than when they were originated. At current mortgage interest rates, this effect would be expected to dissipate gradually over the projection horizon.

9 Empirical work estimates a stronger relationship between a subset of core inflation and the output gap.

Chart 16: The proportion of core consumer goods and services for which prices are increasing by less than 2 per cent has risen markedly since mid-2012

Weighted percentage of components for which prices are increasing by less than 2 per cent, monthly data



Sources: Statistics Canada and Bank of Canada calculations Last observation: November 2013

Chart 17: Heightened competition in the retail sector is contributing to the unusual weakness in the prices for core food items and non-durable goods

Year-over-year percentage change, monthly data

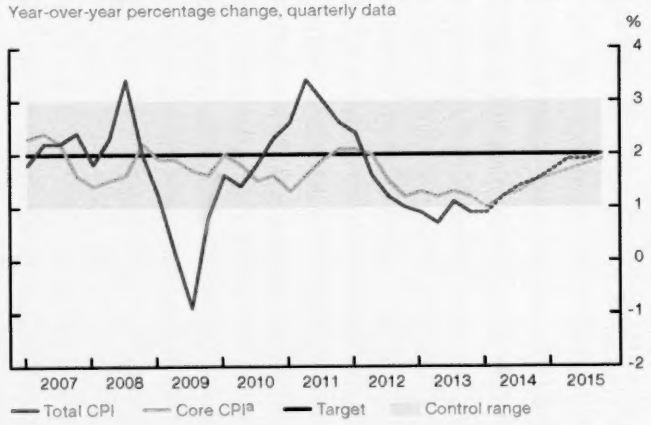
Sources: Statistics Canada and Bank of Canada calculations Last observation: November 2013

Both core and total CPI inflation are projected to remain around 1 per cent in the first half of 2014 and to increase very gradually toward the target, as excess capacity is absorbed and the impact of increased competition dissipates (**Chart 18**).[10] The depreciation of the Canadian dollar in the past year is also expected to exert some upward pressure on inflation. The lower profile for inflation relative to October mainly reflects the Bank's assessment that the effects of heightened competition on inflation will be more widespread and persistent than previously assumed. While increased competition will have a permanent effect on the level of prices, its impact on the rate of inflation will be transitory. The assumption in the Bank's base-case projection is that it will subtract around 0.3 percentage points from core inflation in 2014, with the effects largely dissipating by around the middle of 2015.

10 The indirect effects associated with the restoration of the provincial sales tax in British Columbia are still expected to have a minor impact on core inflation over the near term (see the April 2012 *Monetary Policy Report*).

Chart 18: CPI inflation is subdued and expected to return slowly to target

Year-over-year percentage change, quarterly data



a. CPI excluding eight of the most volatile components and the effect of changes in indirect taxes on the remaining components

Sources: Statistics Canada and Bank of Canada calculations and projections

To the extent that the effects of increased retail competition have a transitory impact on inflation, they should not necessarily elicit a monetary policy response unless they induce a change in inflation expectations.

Indicators of inflation expectations are consistent with the Bank's projection. The January Consensus Economics forecast for total CPI inflation was 1.5 per cent for 2014 and 1.9 per cent for 2015. According to the latest *Business Outlook Survey*, inflation expectations remain steady, with almost all firms expecting CPI inflation to be within the Bank's 1 to 3 per cent inflation-control range over the next two years, and with the majority expecting inflation to remain in the bottom half of that range. Market-based measures of longer-term inflation expectations continue to be consistent with the 2 per cent inflation-control target.[11]

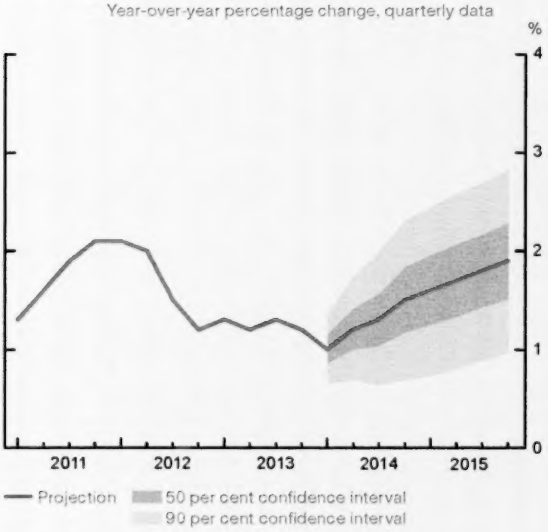
Based on the past dispersion of private sector forecasts, a reasonable range around the base-case projection for total inflation in 2014 is ± 0.3 percentage points.[12] This range is intended to measure ex ante forecast uncertainty. Fan charts, which are derived using statistical analysis of ex post errors from the Bank's projection models, provide a complementary perspective. **Chart 19** and **Chart 20** show the 50 per cent and 90 per cent confidence bands for year-over-year core inflation and total CPI inflation from the first quarter of 2014 to the end of 2015. The degree of uncertainty around the inflation forecast, and the range of weaker-than-projected outcomes in particular, are important considerations for policy in light of the low level of inflation and the recent series of downside surprises.

11 Inflation has been below target in most major advanced economies. While long-term inflation expectations seem to be well anchored, short-term inflation expectations have drifted downward in these economies.

12 See Box 1 in the October 2013 *Monetary Policy Report* for details on how this range was calculated.

Chart 19: Projection for core CPI inflation

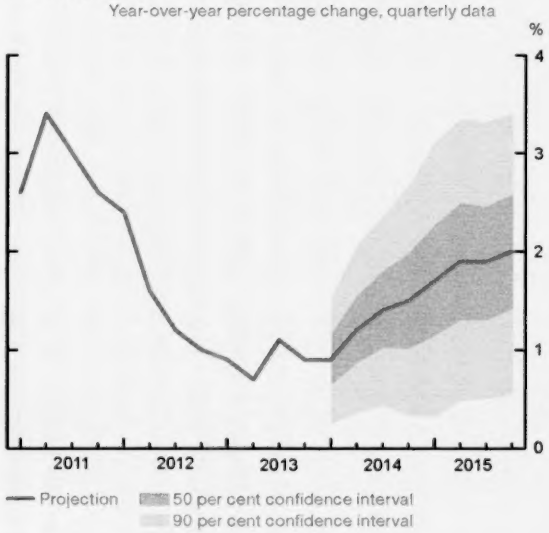
Year-over-year percentage change, quarterly data



Source: Bank of Canada

Chart 20: Projection for total CPI inflation

Year-over-year percentage change, quarterly data



Source: Bank of Canada

Risks to the Inflation Outlook

The outlook for inflation is subject to several risks emanating from both the external environment and the domestic economy. The Bank judges that the risks to the projected inflation path are roughly balanced.

The most important risks to inflation are:

(i) **Stronger U.S. investment**

The major upside risk to inflation in Canada is the possibility of stronger-than-expected growth in U.S. private demand. Business investment in the United States has been subdued, in part reflecting the cautiousness of firms in a highly uncertain environment. As the economy strengthens and uncertainty dissipates, business sentiment should improve, and firms may not only increase investment, but they may also make up for the previous shortfall. This would boost economic activity and confidence more generally, leading to positive spillover effects throughout the U.S. economy. It would also likely be accompanied by higher U.S. market interest rates and a stronger U.S. dollar. Although this would put upward pressure on market interest rates in Canada, these effects would be more than offset by the increase in U.S. real GDP. Stronger U.S. demand would be transmitted to the Canadian economy through the trade channel and firmer commodity prices, as well as through reduced uncertainty and positive confidence effects.

(ii) **Underperformance in Canadian exports**

Over the past two years, a significant wedge has emerged between the level of Canadian exports and that of foreign demand. While prospects for the global economy have improved and the Canadian dollar has depreciated in the past year, the base-case projection is conservative in assuming that only a small portion of this wedge will dissipate over the next two years. However, with the performance of exports still disappointing, there is a risk that the growth rate of exports will continue to fall below that of foreign activity in coming

years. This could reflect more intense competitiveness pressures or an inability to respond rapidly to increases in demand, given the reduced production capacity in some export sectors. A weaker recovery of exports would translate into slower growth in business investment. Together, weaker growth in both exports and business investment would pose a downside risk to inflation.

(iii) Imbalances in the household sector

The evolution of the housing sector continues to support the Bank's soft-landing scenario. Housing starts are largely in line with demographic demand, and resale activity is close to its historical average. Households remain vulnerable to adverse economic shocks, however, given that household leverage remains elevated and the ratio of house prices to income is close to its all-time high. The risk of a disorderly unwinding of household sector imbalances, should it materialize, could have sizable spillover effects on other parts of the economy and on inflation.